



MIND THE GAP – HOW DATA CENTERS CAN ADDRESS THE WORKFORCE BRAIN DRAIN

Introduction

Individuals in the labor force born between 1946 and 1964, known as “Baby Boomers” in the U.S., are nearing retirement. In fact, since 2011, approximately 10,000¹ of these individuals reach retirement age on a daily basis in the U.S. alone, and this is expected to continue until 2030. With 40 percent² of employees within this age range remaining at one job for 20 or more years, it’s likely that many of these individuals are retiring from only their first, second or maybe third place of employment.

On the other end of the age-range and across the globe, half or more³ of the population in the Middle East, Africa and South Asia are under 30. In 2015, the population of millennials in the U.S. – individuals born between approximately 1981 and 1997 –surpassed⁴ the 1946-64 population. And in contrast to their older predecessors, the median tenure for this young workforce clocks in at only two years⁵.

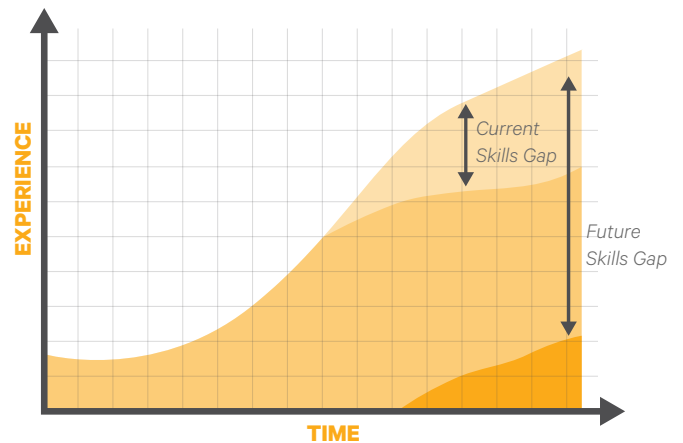
Whether we’re talking about 20-somethings entering the workforce or 60-somethings leaving the workforce, resumé’s with two- to three-year career stints or 20-30-year career stints, all of these statistics point toward a major shift in workforce demographics – and its impact is not exclusive to any one industry or country.

As company leadership and human resources teams prepare for the departure of these experienced employees, many of whom were holding positions over multiple decades, and the influx of a younger, less-seasoned workforce, the biggest concern is a major skills gap. Many businesses already are experiencing some sort of skills gap, but this disparity will only continue to expand as the scales increasingly tip toward the green hires stepping into the roles of retiring industry veterans.

The Expense of Experience

While this transition from a longtime employee to a new hire may seem like an example of standard turnaround – or even an opportunity to execute the same work at a lower salary – the cost of this shift extends far beyond typical onboarding and initial lost productivity.

As seasoned employees make the move to retirement, their institutional knowledge also is departing the company. One expert appropriately refers to this knowledge that is not stored, retrieved nor transferred as “lost knowledge⁶.” Lost knowledge is problematic for any employer, but even more so in highly skilled professions, such as IT, where employees



An extended skills gap is predicted as older employees retire and the new generation of employees cannot keep pace to meet this skill departure.

are taking their specific, in-depth insights, past analyses, countless instances of trial and error, and formed service relationships with them – all experience that cannot be learned from onboarding sessions or a training book.

To combat this, companies must strive to alleviate the brain drain that results from employee turnover and work to retain findings, insights and knowledge collected by an employee prior to their departure. Additionally, new employees must be equipped with insightful tools to help alleviate the learning curve. Luckily, we in the IT and data center industry are in a particularly advantageous position to do just that. By utilizing available data, connected devices and machine learning, the IT and data center industries can work to retain the knowledge of their current staff and take action to address the ever-increasing skills gap.

Enhancing Explicit Knowledge

Critical knowledge often is separated into two categories: explicit and tacit. Explicit refers to the type of information that can be explained easily and stored in manuals or databases. Naturally, this category is more easily addressed than its counterpart when it comes to onboarding and transitioning employees. However, IT and data center companies can do a few things to bolster these efforts beyond your average guidebook or tutorial video.

As new employees come on board, companies can share past data, such as previous equipment performance, vendor performance history, quality, etc., to help minimize any learning curve. Supplying employees with an easily accessible database full of this previously gleaned knowledge can help bridge those inevitable knowledge gaps.

However, this wealth of knowledge can take a technician only as far as the data – or the employee’s interpretation – allows. That’s where connectivity can come into play. Utilizing cloud capabilities to sort this data can further minimize required workforce training and expedite the service provided by new employees. With cloud-connected data center devices, data can be shared and retained from both individuals and equipment more effectively.

For example, when cloud connectivity is in play and a service call arises, the problematic equipment can deliver a notification to a network operations center (NOC) that can then quickly disseminate the right information to the right people, regardless of location. With this relay of information comes the opportunity to provide additional context from past data, such as root causes, similar troubleshooting examples, performance history and, in some cases, even a diagnosis, before anyone sets foot on-site. If a less-experienced employee is tasked with addressing the issue, NOC personnel – who have all the information already on-hand – can guide the employee through the proper resolution and repair.

With this level of cloud connectivity, data from the situation at hand and from past service calls can be accessed and communicated to the correct people, no longer making it essential for the expert to be on-site, or for the servicing technician to be able to address the situation from start to finish before taking action.

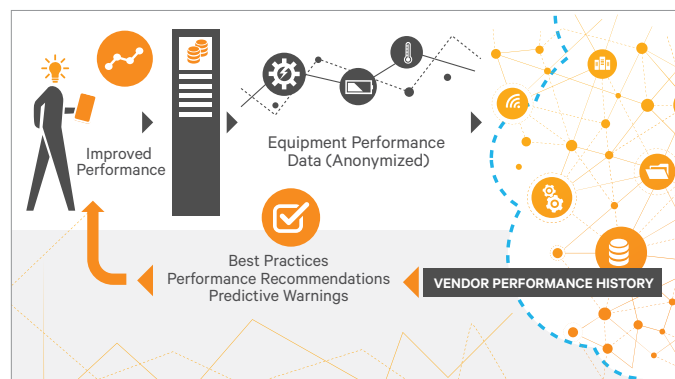
To put the cherry on top of this process, connectivity also can address the issue of knowledge retention. As all of the data from the assessment to the resolution is communicated and pulled back into the cloud, this learned knowledge can be captured for use down the road, providing additional context for future troubleshooting and training.

Supplementing Institutional Knowledge with Machine Learning

Addressing tacit knowledge is a much harder feat. Tacit knowledge proves more difficult to pass on as it is made up of stories, experiences and creative solutions – in other words, most of the institutional knowledge that industry veterans take with them when they leave a company. While there isn’t a way to get directly into the brains of your employees to extract the unspoken reasoning behind certain actions and solutions, data center and IT companies can take the connectivity mentioned above a step further to combat this lost knowledge another way.

As companies increasingly adopt cloud capabilities to connect their IT systems, more and more data will be available. In order to make the most of this information, these cloud services can anonymize and analyze data from various deployments around the world and pull insights from the industry as a whole, as opposed to one specific deployment.

This ongoing extraction and assessment of data and performance history from across the industry has the potential to shift the approach to service from preventative and scheduled to predictive. As data collection expands to a broader spectrum of customers, models and deployments, machines and technicians will be able to identify trends and proactively flag an issue before it arises and has the chance to cause downtime or poor equipment performance.



Leverage technology to aggregate data, combine it with knowledge and learning from vendors and understand how to improve operations and prevent problems.

Conclusion

The workforce shift is under way and there’s no stopping retirees from hanging up their hats or the younger workforce from job-hopping. But, with the proper tools and proactive action, companies in the IT industry have the opportunity to increase information retention efforts and get ahead of the ever-increasing skills gap.

¹ pewresearch.org/fact-tank/2010/12/29/baby-boomers-retire/

² fortune.com/2016/05/10/baby-boomers-millennials-jobs/

³ foreignpolicy.com/2016/08/12/here-comes-the-young-youth-bulge-demographics/

⁴ pewresearch.org/fact-tank/2016/04/25/millennials-overtake-baby-boomers/

⁵ workforce.com/2014/02/14/when-knowledge-left-the-building/

⁶ global.oup.com/academic/product/lost-knowledge-9780195170979?cc=us&lang=en&

